

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

RTIP ID# <i>(required)</i> 35556				
Project Description <i>(clearly describe project)</i> IN VICTORVILLE FROM 0.3 KM N/O MOJAVE DR. IC TO STODDARD WELLS ROAD – ADD N/B MIXED FLOW LANE WITH AUX. LANE, RECONSTRUCT “D” ST. AND “E” ST. INTERCHANGE(IC) AND STODDARD WELLS IC (PHASE 3)				
Type of Project <i>(use Table 1 on instruction sheet)</i> RECONFIGURE EXISTING INTERCHANGES				
County SAN BERNARDINO	Narrative Location/Route & Postmiles SBd /15/PM 41.9-46.0 Caltrans Projects – EA# 355560			
Lead Agency: CALTRANS				
Contact Person Tony Louka	Phone# 909-383-6385	Fax# 909-383-6494	Email Tony_louka@dot.ca.gov	
Hot Spot Pollutant of Concern <i>(check one or both)</i> PM2.5 PM10 <input checked="" type="checkbox"/>				
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>				
Categorical Exclusion (NEPA)	EA or Draft EIS	<input checked="" type="checkbox"/> FONSIs or Final EIS	PS&E or Construction	Other
Scheduled Date of Federal Action:				
Current Programming Dates <i>as appropriate</i>				
	PE/Environmental	ENG	ROW	CON
Start	September 2005			
End	03-25-2008			

project Purpose and Need (Summary): *(attach additional sheets as necessary)*

It is proposed to reconstruct three interchanges (EA 355560) and upgrade roadway standards on Interstate Route 15 (I-15) between Mojave Drive Interchange KP 67.4 (PM41.9) and 1.6km north of the existing Stoddard Wells Road Over-crossing, KP 74.0 (PM 46.0) to meet current standards, improve operational efficiency, and enhance safety. The major engineering features include: reconstruction of “D” Street and “E” Street interchanges; relocation of Stoddard Wells Road interchange; widening the Mojave River Bridge and Victorville Separation and Overhead; upgrading geometric for 4.4 km of mainline roadway realign the east frontage road; and constructing the west frontage road. “No-build” and “Interchange Reconstruction” are the only viable alternatives currently under consideration.

The Purpose and Need for the Interchange Reconstruction, was developed in cooperation with the FHWA. The purpose of the project is to upgrade the facility to meet current standards and improve operational characteristics that contribute to safety problems and operational inefficiencies. Three general purpose objectives were adopted by the project development team to assess the viability of alternatives in fulfilling the projects

- Upgrade interim non-standard roadway features to current highway standards;
- Improve operational characteristics of the “D” Street, “E” Street, and Stoddard Wells Road interchanges that address accident concentrations and operational inefficiencies;
- Enhance safety by improving the operational characteristics of the interchanges.

Traffic data for existing facility (mainline and interchanges) within the project limits are shown in appropriate cells below for existing year 2006, year open to traffic 2012 and the Design/horizon year 2030. A simple and concise expression of the basic factors controlling the design of the freeway is shown by the design designation below.

Traffic

ADT (2010) = 70,000 D = 60%
 ADT (2030) = 120,000 T = 10%
 DHV = 10,000 V = 130km/h

Where: ADT = Average daily traffic for the construction year and design year; DHV=The two-way design hourly volume; D = The percentage of DHV in the direction of heavier flow; T = % trucks in the DHV; and V=design speed.

MAINLINE (I-15) NORTHBOUND EXISTING YEAR 2005

LOCATION	AM Peak	PM Peak	N _F	AM Peak LOS	PM Peak LOS	Truck %
Mojave Drive to “D” Street	5147	3632	3	D	C	10%
“E” Street to Stoddard Wells	4546	2562	2	F	C	10%
Stoddard Wells Road to SR-18 IC	4350	2342	2	F	C	10%

MAINLINE (I-15) SOUTHBOUND EXISTING YEAR 2005

LOCATION	AM Peak	PM Peak	N _F	AM Peak LOS	PM Peak LOS	Truck %
SR-18 IC to Stoddard Wells Road	2342	4352	2	C	F	10%
Stoddard Wells to “E” Street	2545	4546	2	C	F	10%
“D” Street to Mojave Drive	3539	5247	3	C	D	10%

Surrounding Land Use/Traffic Generators (*especially effect on diesel traffic*)

The existing facility consists of 3 mixed flow in each direction after completion of phase, 1 and 2, which provided adding a lane in north and south direction. The proposed interchange Reconstruction would configure interchange and upgrade nonstandard roadway features, improve operational deficiency and safety. The City's General Plan Land Use Map identifies the areas within the project study area adjacent to I-15 and within the project limit is primarily urbanized consisting of residential, general commercial and light industrial uses.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

it is anticipated that the project would be open to traffic in the year 2012 and the traffic for "Build" and "No-Build" is the same as provided by Traffic forecasting Unit Caltrans District 8

MAINLINE (I-15) NORTHBOUND YEAR 2012 BUILD

LOCATION	AM Peak	PM Peak	N _F	AM Peak LOS	PM Peak LOS	Truck %
Mojave Drive to "D" Street	5435	3832	3	D	C	10%
"E" Street to Stoddard Wells	4831	2811	3	D	B	10%
Stoddard Wells Road to SR-18 IC	4626	2607	3	D	B	10%

MAINLINE (I-15) SOUTHBOUND YEAR 2012 BUILD

LOCATION	AM Peak	PM Peak	N _F	AM Peak LOS	PM Peak LOS	Truck %
SR-18 IC to Stoddard Wells Road	2607	4676	3	B	C	10%
Stoddard Wells to "E" Street	2831	4831	3	B	D	10%
"D" Street to Mojave Drive	3708	5535	4	B	C	10%

Source: The above traffic information is reproduced as given by Caltrans Traffic Forecasting District 8

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

The Design/ Horizon year for the project is 2030 and the projected traffic figures are taken from the information provided by Caltrans Forecasting/Traffic Analysis Unit, District 8 (San Bernardino)

MAINLINE (I-15) NORTHBOUND YEAR 2030 BUILD

LOCATION	AM Peak	PM Peak	N _F	AM Peak LOS	PM Peak LOS	Truck %
Mojave Drive to "D" Street	5630	3660	3	D	C	10%
"E" Street to Stoddard Wells	5800	3800	3	D	C	10%
Stoddard Wells Road to SR-18 IC	5800	3600	3	D	C	10%

See other traffic data Tables given on the last sheet

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

NONE available

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Surface Street Traffic Analysis (Truck %=10 for each Case as assumed by Caltrans Traffic Forecasting)

LOCATION	BUILD-2030				NO BUILD-2030				
	East Bound ADT	West Bound ADT	AM Peak EB/WB ADT	PM Peak EB/WB ADT	East Bound ADT	West Bound ADT	AM peak EB/WB ADT	PM Peak EB/WB ADT	
EB "D" Street beyond NB off ramp	12000	12000	1000/1250	1600/1200	12000	12000	1000/1400	1400/1000	
EB "D" Street Before SB off ramp	12000	12000	950/1400	1600/1100	12000	12000	1200/1400	1400/1200	
Stoddard Wells Rd East of NB off Ramp	6300	7300	520/590	660/600	5000	5000	400/	500/	
Stoddard Wells Road West of SB on ramp	6300	7300	660/620	580/880	5000	5000	500/	400/	

NOTES: The East and West bound traffic on Stoddard Wells Rd is not give in Traffic Analysis diagram for Forecasted year 2030. It is presumed that the total ADT on NB on and off ramps traffic is adopted from Traffic Study Report traffic Diagram (October, 2005)

Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)

In accordance with San Bernardino and Riverside Counties Congestion Management plans (CMP), the I-15 route concept is level of service (LOS) "E" for the urbanized portion of the route. In the rural areas, the route concept is LOS of "C" and in the transition areas where the route changes from rural to urban, the concept is "D". LOS E is the level of service in 2025 route concept adopted by Caltrans District 8 for the segment of I-15 affected by this project. The City of Victorville's target for peak hour intersection operation is LOS E or better and the threshold of significance occurs when the addition of project generated trips causes an intersection, operating at LOS E or better, to operate at LOS F. The LOS performance for freeway operations and ramp/ local street shall be considered deficient in 2030 if it operates lower than LOS E. The heaviest traveled segment of I-15 within the project study area is between Mojave Drive IC and D and E Street IC. For "No- build" condition in design year 2030 the LOS is F between D and E Street IC but with project implementation the LOS is C/D. The SR-18 which is also "D" Street within the project area would be relocated to connect with the planned future new SR-18 Interchange located north of Stoddard Wells Road IC along I-15. The relocation of SR-18, which would remove SR-18 traffic load from "D" street, which currently is serving the traffic from Highway-18. This redistribution of traffic would further ease up congestion and delays on segment of I-15 and the three interchanges within the proposed project limits.

Comments/Explanation/Details *(attach additional sheets as necessary)*

The proposed project has STIP funding. The project is scheduled to complete construction by 11/08/2012 with RTL date of 04/13/2010. The PA&ED and PS&E are respectively 03/12/2008 and 11/10/2009. The implementation of the project would reduce delays and congestions at the local streets ramp intersections. Slowing down of traffic on mainline freeway due to insufficient merge diverge lengths and climbing length for heavy truck in SB direction entering mainline from existing "E" street on-ramp. Widen of freeway road bed and upgrading of roadway standards which would allow mainline traffic flow to move uniformly rather in an unsafe and chaotic manner due to narrowing of I-15 mainline road bed within the project study area. The proposed project would accommodate future projected traffic and improve operational efficiency of the mainline and intersections by increasing the speed on mainline and reducing congestion and delays and idling of vehicle on ramps intersections which would improve air quality by reducing exhaust emissions of criteria pollutant (CO, PM2.5, PM-10) and MSAT from vehicles. As can be seen from Tables presented that there is no significant increase in diesel truck vehicles volumes related to the project which would degrade or affect the level of service (LOS) of project intersections/interchanges. The truck percentage in ADT remain as 10% with and without the project. It can be seen that project implementation would improve the LOS of mainline and interchanges. This is not a Project of Air Quality concern as defined in 40 CFR 93.123(b)(1).

Continued from page 3 (RTP Horizon year/Design Year)

MAINLINE (I-15) SOUTHBOUND YEAR 2030 BUILD						
LOCATION	AM Peak	PM Peak	N _F	AM Peak LOS	PM Peak LOS	Truck %
SR-18 IC to Stoddard Wells Road	3600	5800	3	C	D	10%
Stoddard Wells to "E" Street	3900	5800	3	C	D	10%
"D" Street to Mojave Drive	4300	6500	4	C	D	10%

MAINLINE (I-15) NORTHBOUND YEAR 2030 NO-BUILD						
LOCATION	AM Peak	PM Peak	N _F	AM Peak LOS	PM Peak LOS	Truck %
Mojave Drive to "D" Street	6400	4500	3	E	C	10%
"E" Street to Stoddard Wells	5800	3800	3	D	C	10%
Stoddard Wells Road to SR-18 IC	5800	3600	3	D	C	10%

MAINLINE (I-15) SOUTHBOUND YEAR 2030 NO-BUILD						
LOCATION	AM Peak	PM Peak	N _F	AM Peak LOS	PM Peak LOS	Truck %
SR-18 IC to Stoddard Wells Road	3600	5800	3	C	D	10%
Stoddard Wells to "E" Street	3900	5800	3	C	D	10%
"D" Street to Mojave Drive	4300	6500	4	C	D	10%

Source: The above traffic information is reproduced as given by Caltrans Traffic Forecasting District 8